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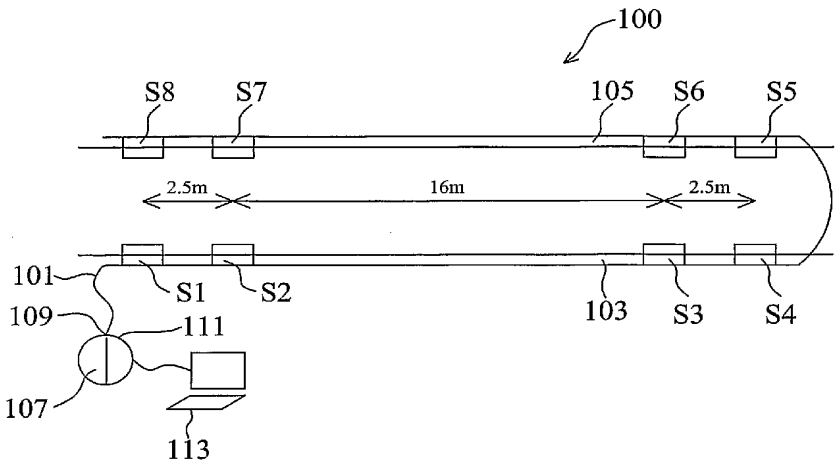
(54) Title: RAILWAY MONITORING SYSTEM



(57) Abstract: A railway monitoring system firstly includes an optical fiber. A first part of the fiber is attachable to one of a pair of tracks of a rail, and a characteristic of the first part of the fiber is variable in correspondence to variance of a characteristic of said one track where the first part of fiber is attached. The system also includes an optical signal emitter connected to the fiber for emitting an optical signal into the fiber, and the fiber generates at least a first altered optical signal, which contains information relating to the variance of the characteristic of the part of the fiber. The system further includes an optical signal analyzer connected to the fiber for receiving and analyzing the first altered optical signal so as to ascertain the variance of said characteristic of said one track based upon the information contained in the first altered optical signal.

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